

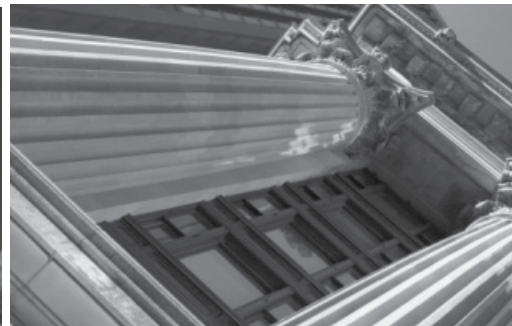


A STRATEGY
PAPER FROM:

CENTER FOR
DIGITAL
GOVERNMENT

REAL LIFE. LIVE.

WHEN GOVERNMENT ACTS MORE LIKE THE PEOPLE IT SERVES



REAL LIFE. LIVE.

WHEN GOVERNMENT ACTS MORE LIKE THE PEOPLE IT SERVES

Real life has become complicated again. The country has begun to work through a systemic credit crisis that is changing the way things work on Wall Street and Main Street — and under the capitol domes of government.

There are competing proposals about how to restructure institutions in the wake of the crisis, each reflecting different compromises on the continuum of market-based approaches to an increased regulatory environment to out-right government ownership.

With crisis comes opportunity — a rare point of agreement between the theories of progressive journalist and author Naomi Klein¹ and libertarian economist Milton Friedman. Klein said she believes the opportunity is for mischief, while Friedman sees it as a catalyst for meaningful change.

“Only a crisis, real or perceived, produces real change,” he said. “When that crisis occurs, the actions that are taken depend on the ideas that are lying around.”²

One of the ideas that is lying around is what was once popularly known as e-government. Unlike naked ideas — those that exist only in the minds and proposals of their creators — e-government has an installed base and a growing universe of Internet partisans who want more and better public services delivered through this channel.

The portal and online service delivery — which were once pegged as alternatives — are now more than just mainstream. They are the default channel for cost-effective, sustainable and (when done right) compelling experiences for the public that government serves. That, coupled with continuing technological innovation under the rubric of Web 2.0, suggests that e-government may be lying around. That is not to say that e-government is not delivering public value. It is. E-gov is lying around only in the sense of its — still largely latent — potential to change the cost structure and service delivery stance of government. If not e-gov, then what? If not now, when?

Government now serves a firmly ensconced digital majority, where 70 percent or more of American households (including all gender, race and age demographic cohorts) are connected to the Internet³ — and more than half have broadband access.⁴ Americans with broadband access — estimated at more than 45 million — spend half their spare time online.⁵ Sooner or later, they are going to bump into a government Web site. Will it meet their needs and expectations for getting something real done at a time and place of their choosing?

The new conventional wisdom is to point to Web 2.0 and its social networking qualities — user-generated, media-rich content and interactive communities of interest — as the answer. Indeed, there are opportunities to leap-frog in the transformation of certain aspects of service delivery. Curiously, Web 2.0 is often pitted against its predecessor — you know, the Web that didn't have a version number. But there is no need to reconcile friends. The innovations of the Web — new and old — have matured into a platform for governing and conducting the public's business.

As a companion to a previous whitepaper from the Center for Digital Government called *This Old Portal*, which detailed the structural and design components of developing, maintaining and renovating (as needed) the online platform, this whitepaper, *Real Life. Live*, looks forward to a time when government acts more like the people it serves. And that time should be now ... or, at least, soon.

Real Life. Live takes a long view of the coming digital landscape, and its three defining directions:

- I. **Going Local:** *A portal and a platform for hyper-localized service delivery*
 - II. **Going Mobile and Going Social:** *Government as your BFFL⁶ — anytime, anywhere*
 - III. **Going Green and Going Home:** *Sustainability by saving trips at both ends of the transaction.*
- Each will be discussed in turn.

In a word, progress toward e-government has been uneven. Consider the experience of the U.S. federal government as seen through the Administration's internal report card on the subject.

In the *President's Management Agenda Scorecard* for the second quarter of FY 2008, (a) more than half of all federal agencies have a worrisome status of yellow or red; and (b) only three of 26 — 12 percent — federal agencies had their act together and were still moving forward on a handful of priorities. Singling out the priority of most interest here, 20 agencies were making green-level progress on e-government but 17 were digging out of a hole (14 yellow, 3 red) on the status measure.⁷ Ironically, the reddest of the red status belonged to the Department of Commerce.

The Economist provides a sobering albeit snippy assessment of e-government in the United Kingdom and the United States.⁸ Interestingly, the British publication points to the American capitol as a rare find. It calls out the Washington, D.C., portal⁹ and an allied suite of mashups and wikis as a hopeful example of how bureaucracies can be responsive to the public's needs and simplify service delivery.

Public-sector portals originated as equal parts veneer (to mask the complexity) and shared service (which previously discrete agencies could present themselves through a common face and be supported by shared infrastructures), while extending the value of data from legacy systems.

More on the use of such Web 2.0 entry points follows later in the paper, but, first, it is worth unpacking *The Economist's* main critique that e-government is a pale imitation of the dot-coms. Indeed, Amazon.com Inc. (despite some bumps along the way) has maintained — even polished — its reputation as the gold standard for online transactions. The information and transactions are reliably approachable, findable and actionable. The interface is appealing, intuitive and consistent each time a transaction occurs. Search and navigation are constantly learning from users about how they look for what they want and return more relevant results (including book or music recommendations). Moreover, it is easy to act on what you find. In many cases, a single click will complete the transaction — whether the item is purchased directly from Amazon or its expansive network of independent agents or resellers.

That said, *The Economist* may give the private sector too much credit for delivering the same services and the same level or quality of service across channels. The magazine's argument that e-government is a pale imitation of the dot-coms would have greater resonance if the private sector actually delivered consistent, seamless online experiences. Many customers of large banks routinely encounter false starts and dead ends in managing their accounts online. Much of online banking stretches a thin veneer over dissimilar and previously discrete operating units, coming as it does with considerable variation by geography and lines of business. Through mergers and acquisitions, banks are now more of a federated environment than a unified enterprise. Banks and other corporations that have acquired, developed and even spun off business units face the challenge of presenting a common front end that masks the complexity, diversity and stubbornly separate infrastructures at the back end. That gives them much in common with the federated environment that is government.

Public-sector portals originated as equal parts veneer (to mask the complexity) and shared service (which previously discrete agencies could present themselves through a common face and be supported by shared infrastructures), while extending the value of data from legacy systems.

All of this is the work of the original Web (the one without a version number) and the repetitive process of making incremental improvements over time en route to a transformation in the relationships between citizens and their government.

This Old Portal rehearses the basics of making sure the portal is sustainable from the start and captures some of the lessons learned from the first decade of public-sector portals.

Many public portal operators have worked hard over the years to be "Amazon-dot-govs" — approachable, findable and actionable — to the communities they serve. Among them are state portals in Alabama, Arkansas, California, Maine, Utah and Washington and local counterparts as diverse as Las Vegas, Nev., Killeen, Texas, Louisville, Ky., Oakland County, Mich., San Diego County, Calif., and Wake County, N.C. The list is not exhaustive but each portal received positive recognition or awards for changing the way the public's business is accomplished.

Portals have been helpfully subversive as a catalyst for making federated environments act more like an enterprise. The Massachusetts Common Intake portal integrates screening, intake and eligibility across a range of health and human service offerings. In Virginia, TurboVet combines a Wizard-style question-and-answer interface to ensure veterans

receive the benefits for which they are eligible, while a social network creates a forum for soldier-to-soldier advice. And in Hawaii, one-stop online services integrate the rules of multiple agencies to help entrepreneurs register new businesses and ensure that potential government contractors are compliant with the state's procurement regulations.

The story is the same at the infrastructure or shared services level. Twenty-one states rely on a single company to manage their portals and add transactions to their suite of online services. For its part, Newport News, Va., has been a driving force in the use and promulgation of an open source content management system. Still below the hood, Utah, South Carolina, Arkansas, Kansas and Idaho are among the states that provide common payment engines to process transactions from hundreds of online applications for both state and local government agencies. And in Washington state, King County's security portal puts a secure wrapper around its agencies' applications.

So, what do we have to show for approximately 13 years of the portal? The action and much of the value has been realized through the hundreds of applications and transaction types that stand behind the portal.

The Center for Digital Government's *Digital States* survey provides a longitudinal view of the implementation of online services in 25 categories. As Figure 1 demonstrates, there has been: (a) significant growth in the last four years; and (b) implementation rates have topped out in many of the categories.

Significantly, those applications with the lowest implementation rates are those that require more sophisticated inputs to complete the transactions — VIN validations, vital records, credential lookups and driver's license renewal among them. These categories lag the others because they are tougher nuts to crack. The harder work requires rethinking the data sharing needed to complete the transaction. The data exist somewhere, and the Web 2.0/3.0 challenge and opportunity is to get the data from where they are to where they are needed. This involves machine-to-machine Web services — the type of Web service that we don't think about because it is intangible. By definition, it does not involve human intervention or — the way the machines see it — human latency.

These Web services are well-suited for what Nick Carr, author of *Does IT Matter?* and former executive editor of the *Harvard Business Review*, called cheap, utility computing — alternatively known as cloud computing or software as a service (SaaS). These are variations on a theme that has been around for some time. They are heirs to the Application Service Provider (ASP) model and have much in common

with the so-called self-funded portal model, in which the infrastructure, application development and ongoing support are managed by the private sector at no upfront cost to government agencies or taxpayers. Carr correctly describes an approach that, while not new, has matured to the point where it can take its place in a mix of mission-critical platforms. Carr condensed his argument for *The Big Switch*¹⁰ to three irreducibly complex bumper stickers:

1. Harness the worldwide computer (an old term Carr resurrected to describe the cumulative effect of utility computing);
2. Rethink the interface (which necessarily includes man-to-machine and machine-to-machine Web services); and
3. Reengineer the infrastructure (to make room for utility computing in the mix of platform choices).

The new platforms allow government to shift its focus from owning infrastructure to exercising it. It has been a long time coming.

In the dozen years since its introduction, e-government — and its cornerstone, the portal — has matured from a project to a platform. The distinction is an important one. Marc Andreessen, the co-creator of the browser, observes, "A 'platform' is a system that can be programmed and therefore customized by outside developers — users — and in that way, adapted to countless needs and niches that the platform's original developers could not have possibly contemplated, much less had time to accommodate."¹¹ In Andreessen's experience, the browser became an accidental platform. In government, the portal was envisioned early on as a platform for organizing government service delivery in one place. It just took a while for them to realize the potential.

Figure 1. Online Services Offered



II. GOING MOBILE AND GOING SOCIAL | *Government as your BFFL¹² — anytime, anywhere*

If e-government has been perfected, it has been perfected for the desktop or laptop experience — a 13- to 20-inch screen viewed from about 2 feet away. State portals in South Carolina, Indiana, Virginia, California, Nebraska and Colorado demonstrate that design still matters when considering look, feel and functionality. Design is dynamic and a recent list from Mashable ranks the 10 most beautiful social networks (See sidebar: *Beauty in the Eye of the Beholder*),¹³ providing a stark contrast in look and feel to conventional Web design. It points to the differences in tastes of those who came of age with the original Web and those who have come into their own with Web 2.0.

Going social begins by tapping the MySpace and Facebook communities to attract “friends” and “fans” to the portal with a view to driving traffic back to important service offerings. It builds from there to include posting videos on YouTube (fundamentally reinventing the public service announcement and making government more transparent);

BEAUTY IN THE EYE OF THE (MILLENNIAL) BEHOLDER

Images from what Mashable considers the most beautiful social networks wash over the audience, followed by a question — do any of your sites look like any of these?

1. Virb
2. Trig
3. PureVolume
4. my.9rules
5. Pownce
6. Flickr
7. Threadless
8. Shelfari
9. Beautiful Society
10. Humble Voice

Do they? See for yourself. And consider that design does matter if public agencies are to serve (and be seen as relevant by) the demographic cohort that is native to the net.

SOCIAL NETWORKS

By establishing a presence on social networks such as the following, government can meet constituents in their preferred environments:

- Ning
- Twango
- Facebook
- Nexo
- MySpace
- Twitter

using folksonomies to help curate archival photos through Flickr; publishing police blotters and hosting policy hearings on Twitter; connecting information and services to their geography through mashups of online mapping and wikis; and tapping people with common concerns and needs to help each other through Ning, Nexo, Twango and other social networking sites.

States as diverse as Virginia, Utah, Rhode Island and South Carolina have embraced Web 2.0 entry points for their portals. At first blush, it might seem quaint or gimmicky for a portal to have “friends” on MySpace, Facebook, Ning, Nexo or any number of other social networks. But the genius of making friends is that it places government in the middle of social networks (which, by definition, are places where people like to congregate) rather than expecting people to find a government Web site without an introduction through a trusted environment. The social networking entry point is on the citizens’ turf, and the engagement is on the citizens’ terms. They link back to the portal, which has been effectively repositioned as a non-exclusive door to the suite of services and information that stands behind it. In other words, being a friend on social networks helps government act more like the public it serves.

There are other dimensions to the Web 2.0 reconsideration of the portal. Virginia.gov has introduced a number of Google gadgets, which add useful features and functions to the presentation of information and services. Interestingly, there is an open source dimension to gadget making. Open Social is a standard way to build new features or widgets and plug them into social networks all over the Web, including social networks such as Facebook, MySpace and Ning.¹⁴

Making information and transactions developed for the desktop browser useful and actionable from nomadic devices with postage stamp-sized screens becomes more important as growing numbers of users eschew landlines and PCs for mobile phones and other untethered devices. By mid-2008, one-third of American households had abandoned conventional phone service in favor of mobile phones. The number of cellular alone homes jumps to two-thirds in households headed by people under the age of 30.¹⁵

There are now entire generations for whom the native environment is not radio and television but social operating systems, collective intelligence, data mashups, grassroots video, collaboration Webs and mobile broadband. They expect more of online communities than those who came of age somewhere between the TV and the PC. As the Internet returns to its social roots through Web 2.0 features such as blogs, wikis, social networks, mashups and viral video, the new features are rapidly adopted by a large and growing user base who expects nothing less.

With the digital majority, government and its agents have an opportunity to follow citizens home or to work or to their preferred 'third place' — but not in a creepy way — to monitor satisfaction with the services they receive. Of course, the third place may not just be the corner coffee shop but almost anywhere in an uncontrolled environment, which is exactly where timely access to actionable information and transactions are more valuable to the recipient than under more conventional circumstances.

With the digital majority, government and its agents have an opportunity to follow citizens home or to work or to their preferred 'third place' — but not in a creepy way — to monitor satisfaction with the services they receive.

Even as work continues to finish what states started in their transition to online service delivery, the 2008 *Digital States* survey results indicate there has been wide-scale experimentation and significant adoption of collaborative Web 2.0 technologies among public agencies. Listservs, the long established Web 1.0 tool used by more than two-thirds of states (60 percent), have been joined by wikis in one-quarter (26 percent) for sharing information of common interest and concern. RSS feeds — alternatively known as Really Simple Syndication, RDF Site Summary or Rich Site

TWEET ME: THE NEW WATER COOLER CHATTER

California Department of Vehicles:
http://twitter.com/CA_DMV

California Gov. Schwarzenegger:
<http://twitter.com/schwarzenegger>

CALPERS: <http://twitter.com/CalPERS>

Colorado: <http://twitter.com/coloradogov>

Kentucky: <http://twitter.com/kygov>

Louisville, Ky.: <http://twitter.com/louisvillekygov>

Louisville, Ky., Metro Government Events
Calendar: <http://twitter.com/loukyevent>

Maine: http://twitter.com/www_maine_gov

Michigan Gov. Granholm:
<http://twitter.com/govgranholm>

Michigan Lt. Gov. Cherry:
<http://twitter.com/johncherry>

Nebraska: <http://twitter.com/nebraskagov>

Rhode Island: <http://twitter.com/rigov>

South Carolina: <http://twitter.com/SCGOV>

Utah: <http://twitter.com/UtahGov>

Vermont: <http://twitter.com/vermontgov>¹⁶

Summary — are common (90 percent) for broadcasting information to interested users, and almost three-quarters of states (72 percent) are using podcasts somewhere within the executive branch. Just less than half of states are using text messaging (49 percent), mashups (46 percent) and blogs (44 percent).

Government is also beginning to tweet. That is, tweet as in the verb form of Twitter, a micro-blogging service based on short messages or "tweets" that can be sent via PC, phone, instant message and numerous third-party applications. The accompanying sidebar, Tweet Me, provides subscription links to a sampling of public twittering. A certain insider status is conferred on Twitter users who can follow developments on matters of shared interest through short messages from public officials and agencies. Vermont, Kentucky, Colorado, Utah and Rhode Island are early adopters of Twitter.

The social impulses of Web 2.0 are also evident in the penchant to share things online — views, music and photos. And it isn't just cell phone photos or pictures from your last vacation. The National Archives of the Library of Congress

made a small portion of its 14 million photos available more widely by posting them online. Instead of building an online photo archive of its own, it opted to partner with the commercial photo sharing site, Flickr. The Library's goals were threefold:

1. to share photographs from the Library's collections with people who enjoy images but might not visit the Library's Web site;
2. to gain a better understanding of how social tagging and community input could benefit both the Library and users of the collections; and
3. to gain experience participating in Web communities who are interested in the kinds of materials in the Library's collections.¹⁷

In short, the Library's Flickr experiment explored the wisdom of crowds and the use of folksonomies in helping to curate part of its collection. And here as well, a revered public institution is learning to act more like the public it serves.

The anytime, anywhere access also has the secondary benefit of saving trips to the library itself — an issue that has recently taken on added significance. Still, at first blush, Web 2.0 seems like uncharted territory to public officials and policy-makers. There is a tendency in some jurisdictions to stay on the sidelines until the benefits of social media are proven somewhere else. It is important to remember that public agencies are not starting from scratch in this foray into Web 2.0: The policy framework, support and political will that grew out of the original e-government movement provide a solid foundation on which to stand in experimenting with — and, ultimately, implementing — Web 2.0 features that encourage greater public engagement and deliver against public expectations in an increasingly social, mobile and hyper-localized world.

III. GOING GREEN AND GOING HOME | *Sustainability by saving trips at both ends of the transaction*

The portal and online service delivery saves trips for the public and employees alike. When large volumes of routine transactions move from conventional front-counter delivery to the network, it takes people and cars off the road and contributes to jurisdictions' ability to meet their climate protection goals.

In a recent straw poll of state CIOs and their associates, 60 percent said the sustainability movement may finally provide telework with the traction it has needed.¹⁸ The rationale is that any shift in power usage by sending public employees home is more than offset by the fuel savings and other environmental benefits realized by taking cars off the road.

With the green-inspired move, e-government has now proven its operational value in ways analogous to what the automated teller machine (ATM) did to banking hours 25 years ago or what online banking did for self-service banking in the last decade.

The Commonwealth of Virginia has taken a disciplined approach to telework. The state's scheme is anchored by legislative direction to meet telework goals by certain dates. The governor has responded with a structure for ensuring productivity and energy savings as public employees integrate telework into their work lives. The executive branch offsets only a modest list of telework essentials in terms of equipment, connectivity and supplies. The upfront restraint is a deliberate effort to ensure that going green saves green, rather than adding a new layer of cost to state operations.¹⁹

But how do you send public employees home without a degradation of the availability of public services? The long list of online self-service transactions in Figure 1 points to at least part of the answer. The good news is that the high

implementation rates for most of the services suggest that they are ready to contribute to sustainability efforts. The bad news is that the tougher, more complex transactions are not available in all states, limiting the opportunity for quick and sustainable wins. The word *quick* deserves qualification. More properly, the ready availability of online self-service is more accurately described as payment of a dividend for decisions and investments made years ago.

Such a green dividend from e-government is seen clearly in Utah where Gov. Jon Huntsman Jr. implemented a four-day work week for state employees in August 2008. The move promised to save trips, but the Utah plan called for closing governments each Friday. Closed buildings can go dark and cold, netting energy and cost savings from reduced heating, air conditioning and lighting use.

But still, what about service delivery during a four-day government work week? The governor was satisfied that the state portal, Utah.gov, and its suite of more than 600 online transactions, were sufficiently broad and deep that the public would be able to conduct business with its government even when the buildings were dark and the employees were at home.²⁰

With the green-inspired move, e-government has now proven its operational value in ways analogous to what the automated teller machine (ATM) did to banking hours 25 years ago or what online banking did for self-service banking in the last decade. But Utah's move was more than that.

The governor was clear on this point — the state could not and would not have introduced a four-day work week with all of its sustainability-related benefits without a mature e-government platform to keep services available. The single act in Utah is more than symbolic. It is the validation of a long-held view that e-government could be — and is — transformational.

CONCLUSION

*Crisis, complications
and the power of an idea*

"Only a crisis, real or perceived, produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around."

- Milton Friedman

The closing years of the first decade of the 21st century are likely to be remembered for their complexities and crisis. We would do well to remember Milton Friedman's observation.

As with past crises, there will be "ideas that are lying around." E-government is one such idea. As ideas, e-government, the portal and the larger campaign for government modernization are unique among others lying around in that they have a proven track record. They are lying around in the sense of their latent potential to change the cost structure and service delivery stance of government. If not e-gov, then what? If not now, when?

Real life has intruded on business as usual and government as usual. The historic analogies used to describe the current chapter of the country's economic life are pretty bleak. Mistakes and misdeeds have shaken faith in the nation's financial structures and, to a certain extent, its future. But Americans, by nature, enjoy an enduring optimism. History also suggests that, buoyed by that unique national optimism, Americans have dusted themselves off and gone on to make a better place of what their forbearers had made of this land.

Winston Churchill famously captured the sentiment less romantically when he concluded that Americans always do the right thing ... but only after exhausting all the other possibilities. Atom-based institutions are exhausted, crushed under the weight of paper-based processes and brick-and-mortar edifices that have declined into mausoleums to tired and discredited bureaucracies. Do you suppose there are any good ideas lying around?

ENDNOTES

- 1 Naomi Klein, *The Shock Doctrine: The Rise of Disaster Capitalism*, Paperback, New York: Metropolitan Books/ Henry Holt and Company (2008).
- 2 See Milton Friedman quotes at http://en.wikiquote.org/wiki/Milton_Friedman.
- 3 Pew Internet and American Life Project, September 2007.
- 4 Nielsen//NetRatings, *US Broadband Connections Reach Critical Mass, Crossing 50 Percent for Web Surfers*, Aug. 18, 2004. (http://www.nielsen-netratings.com/pr/pr_040818.pdf)
- 5 Netpop, *Portraits: Time and How They Spend It*, 2006. (www.netpopresearch.com)
- 6 According to Acronym Finder, BFFL is generally expanded to read Best Friends For Life. (<http://www.acronymfinder.com/BFFL.html>)
- 7 The archive of the executive management scorecards are available at <http://www.whitehouse.gov/results/agenda/scorecard.html>.
- 8 "The Electronic Bureaucrat," *The Economist*, Feb. 14, 2008. (http://www.economist.com/surveys/displaystory.cfm?story_id=10638002)
- 9 The District of Columbia portal that caught the attention of *The Economist* is available at <http://www.dc.gov>.
- 10 Nicholas Carr, *The Big Switch: Rewiring the World, from Edison to Google*, New York: W. W. Norton and Company, 2008.
- 11 See blog post on platforms by Marc Andreessen, "The Three Kinds of Platforms You Meet on the Internet," Sept. 16, 2007 at <http://blog.pmarca.com/2007/09/the-three-kinds.html>.
- 12 According to Acronym Finder, BFFL is generally expanded to read Best Friends For Life. (<http://www.acronymfinder.com/BFFL.html>)
- 13 Stan Schroeder, "10 Most Beautiful Social Networks," Mashable, July 9, 2007. (<http://mashable.com/2007/07/09/beautiful-social-networks>)
- 14 Marc Andreessen, "Friend Connect, Open Social, Ning, and the Web," May 18, 2008 at <http://blog.pmarca.com/2008/05/friend-connect.html>.
- 15 Alan Fram, "3 in 10 Get All or Most Calls on Cell Phones," The Associate Press (AP), May 14, 2008.
- 16 Twitter subscription list compiled by Joseph Morris of the Center for Digital Government, August 2008.
- 17 Library of Congress Prints and Photographs Division, *Library of Congress Photos on Flickr: Frequently Asked Questions*. (http://www.loc.gov/rr/print/flickr_pilot_faq.html)
- 18 Paul W. Taylor, "The Greening of the Public CIO," govtechblogs.com, Sept. 23, 2008. (<http://www.govtechblogs.com/fastgov/2008/09/greening-of-the-public-cio.php>)
- 19 Conversation with Peggy Ward, chief information security officer of the Commonwealth and VITA internal audit officer, Commonwealth of Virginia, Milwaukee, WI: Sept. 23, 2008.
- 20 Conversation with Steve Fletcher, chief Information officer, State of Utah, Milwaukee, WI: Sept. 23, 2008.

© 2008 e.Republic, Inc. All rights reserved.
100 Blue Ravine Road
Folsom, CA 95630
916.932.1300 phone
916.932.1470 fax
www.centerdigitalgov.com

Underwritten by:



NIC is the nation's leading provider of eGovernment portals, online services and secure payment processing solutions. It builds, manages and markets online services for 21 states and hundreds of local governments. Its solutions simplify time-consuming processes, increase efficiencies and reduce costs for government agencies and the constituents they serve. www.nicusa.com



The Center for Digital Government, a division of e.Republic, Inc., is a national research and advisory institute on information technology policies and best practices in state and local government. Through its diverse and dynamic programs and services, the Center provides public- and private-sector leaders with decision support, knowledge and opportunities to help them effectively incorporate new technologies in the 21st century.

Acknowledgments:

Paul W. Taylor, Ph. D., Chief Strategy Officer for the Center for Digital Government and Center for Digital Education